

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. – 2. (Cancelled)

3. (Currently Amended) The method of claim [[2]] 12, wherein sending the request comprises sending a predefined code in [[a]] the random access channel of an Enhanced General Packet Radio Services system.

4. (Original) The method of claim 3, wherein sending the code comprises sending the code in a channel selected from the group consisting of a RACH, PRACH, and CPRACH.

5. (Cancelled)

6. (Previously Presented) A method of establishing a call in a wireless network, comprising:  
sending a request for a packet-switched call over the wireless network;  
communicating control signaling in a traffic channel of the wireless network to establish the packet-switched call; and  
retrieving a pre-assigned code to send in the request,  
wherein retrieving the pre-assigned code comprises retrieving a random access channel mobile station code.

7. (Previously Presented) The method of claim 12, wherein communicating the control signaling comprises communicating the control signaling in a packet data traffic channel.

8. (Original) The method of claim 7, wherein communicating the control signaling comprises communicating the control signaling in PDTCH bursts of an Enhanced General Packet Radio Services system.

1           9.       (Previously Presented) A method of establishing a call in a wireless network,  
2 comprising:  
3                sending a request for a packet-switched call over the wireless network; and  
4                communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call,  
6                wherein communicating the control signaling comprises communicating the  
7 control signaling in a packet data traffic channel mapped to a dedicated physical channel.

1           10.     (Original) The method of claim 9, further comprising communicating bearer  
2 traffic in another traffic channel mapped to the dedicated physical channel.

1           11.     (Original) The method of claim 10, wherein communicating the control signaling  
2 comprises communicating the control signaling in a PDTCH, and wherein communicating the  
3 bearer traffic comprises communicating the bearer traffic in a TCH, the PDTCH and TCH  
4 defined according to an Enhanced General Packet Radio Services protocol.

1           12.     (Currently Amended) A method of establishing a call in a wireless network,  
2 comprising:  
3                sending a request in a random access channel for a packet-switched call over the  
4 wireless network; and  
5                communicating control signaling in a traffic channel of the wireless network to  
6 establish the packet-switched call,  
7                wherein communicating the control signaling comprises communicating Session  
8 Initiation Protocol messages in the traffic channel.

1           13.     (Previously Presented) The method of claim 12, wherein communicating the  
2 control signaling comprises communicating a Session Initiation Protocol Invite request in the  
3 traffic channel.

1           14.     (Cancelled)

1           15.   (Currently Amended) A method of establishing a call in a wireless network,  
2 comprising:  
3               sending a request in a random access channel for a packet-switched call over the  
4 wireless network;  
5               communicating control signaling in a traffic channel of the wireless network to  
6 establish the packet-switched call; and  
7               sending a release message to terminate the packet-switched call in a traffic  
8 channel,  
9               wherein sending the release message comprises sending a Session Initiation  
10 Protocol Bye message in the traffic channel.

1           16.   (Cancelled)

1           17.   (Previously Presented) A method of establishing a call in a wireless network,  
2 comprising:  
3               sending a request for a packet-switched call over the wireless network;  
4               communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call; and  
6               sending quality-of-service related messages in a traffic channel,  
7               wherein sending the quality-of-service related messages comprises sending  
8 Resource Reservation Protocol messages.

1           18.   (Currently Amended) ~~The method of claim 12,~~ A method of establishing a call in  
2 a wireless network, comprising:

3                   sending a request for a packet-switched call over the wireless network; and  
4                   communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call,

6                   wherein communicating the control signaling comprises communicating Session  
7 Initiation Protocol messages in the traffic channel,

8                   wherein communicating the control signaling comprises communicating the  
9 control signaling in PDTCH bursts, the method further comprising communicating bearer traffic  
10 in TCH bursts.

1           19.   (Currently Amended) ~~The method of claim 12,~~ A method of establishing a call in  
2 a wireless network, comprising:

3                   sending a request for a packet-switched call over the wireless network; and  
4                   communicating control signaling in a traffic channel of the wireless network to  
5 establish the packet-switched call,

6                   wherein communicating the control signaling comprises communicating Session  
7 Initiation Protocol messages in the traffic channel,

8                   wherein communicating the control signaling comprises communicating the  
9 control signaling in PDTCH bursts, the method further comprising communicating bearer traffic  
10 in PDTCH bursts.

1           20.   (Cancelled)

1           21.   (Previously Presented) The article of claim 23, wherein the instructions when  
2 executed cause the controller to send the control signaling selected from the group consisting of  
3 RACH, PRACH, and CPRACH.

1           22.   (Cancelled)

1           23.   (Previously Presented) An article comprising one or more storage media  
2   containing instructions that when executed cause a controller to:  
3               send control signaling to request a channel for a packet-switched call over a  
4   wireless network;  
5               add a predetermined code into the control signaling to identify the call as a  
6   packet-switched call; and  
7               communicate packet-switched call control signaling in traffic channels of the  
8   wireless network,  
9               wherein the instructions when executed cause the controller to communicate the  
10   packet-switched call control signaling by communicating Session Initiation Protocol messages in  
11   traffic channels of the wireless network.

1           24.   (Original) The article of claim 23, wherein the instructions when executed cause  
2   the controller to communicate the Session Initiation Protocol messages in PDTCH bursts of a  
3   General Packet Radio Services system.

1           25.   (Original) The article of claim 23, wherein the instructions when executed cause  
2   the controller to communicate a Session Initiation Protocol Invite message.

1           26.   (Original) The article of claim 25, wherein the instructions when executed cause  
2   the controller to receive response messages to the Invite message.

1           27.   (Original) The article of claim 23, wherein the instructions when executed cause  
2   the controller to communicate a Session Initiation Protocol Bye message to release a call.

1           28.   (Original) The article of claim 23, wherein the instructions when executed cause  
2   the controller to communicate messages to provide a supplementary service.

1           29. – 30. (Cancelled)

1           31.   (Previously Presented) A mobile station for use in a wireless communications  
2 system having base stations, comprising:  
3                   a storage element storing a predetermined code associated with packet-switched  
4 calls; and  
5                   a controller to send control signaling to one of the base stations over a wireless  
6 link to set up a packet-switched call,  
7                   the control signaling containing the predetermined code, the predetermined code  
8 to identify the call as a packet-switched call,  
9                   wherein the control signaling comprises a random access channel, the random  
10 access channel containing the predetermined code,  
11                   wherein the random access channel comprises a packet random access channel,  
12 the packet random access channel containing the predetermined code.

1           32.   (Previously Presented) The mobile station of claim 31, wherein the packet  
2 random access channel comprises a COMPACT packet random access channel, the COMPACT  
3 packet random access channel containing the predetermined code.

1           33.   (Cancelled)

1           34.   (Previously Presented) A radio network control system, comprising:  
2                   an interface to a wireless link capable of communicating with a mobile station;  
3 and  
4                   a controller adapted to receive a request to set up a packet-switched call over the  
5 -wireless link,  
6                   the controller further adapted to assign a logical channel combination in response  
7 to the request,  
8                   wherein the logical channel combination comprises TCH + FACCH + SACCH +  
9 PDTCH + PACCH + PTCCH.

1           35.   (Previously Presented) The radio network control system of claim 34, wherein  
2 the controller is adapted to communicate Session Initiation Protocol messages in PDTCH bursts.

1           36.   (Original) The radio network control system of claim 34, wherein the controller  
2 is adapted to communicate a success indication of a packet-switched call session in a PACCH  
3 burst.

1           37.   (Original) The radio network control system of claim 34, wherein the controller  
2 is adapted to communicate radio resource management signaling in a PACCH burst to indicate a  
3 state of the packet-switched call.

1           38.   (Cancelled)

1           39.   (Previously Presented) A data signal embodied in a carrier wave and containing  
2 instructions that when executed cause a system in a wireless network to:  
3               receive control signaling to set up a packet-switched call over the wireless  
4 network, the control signaling carried in a first traffic channel;  
5               establish the packet-switched call over the wireless network; and  
6               communicate bearer data in a second traffic channel.

1           40.   (Original) The data signal of claim 39, wherein the control signaling is carried in  
2 a PDTCH and the bearer data is carried in a TCH.

1           41. – 42. (Cancelled)

1           43.   (Previously Presented) The data signal of claim 39, wherein receiving the control  
2 signaling comprises receiving a Session Initiation Protocol message carried in the first traffic  
3 channel.

1           44.   (Cancelled)

1           45.   (Previously Presented) An article comprising one or more storage media  
2 containing instructions that when executed cause a controller to:  
3               send control signaling to request a channel for a packet-switched call over a  
4 wireless network;  
5               add a predetermined code into the control signaling to identify the call as a  
6 packet-switched call; and  
7               communicate packet-switched call control signaling in traffic channels of the  
8 wireless network,  
9               wherein the instructions when executed cause the controller to send the control  
10 signaling selected from the group consisting of RACH, PRACH, and CPRACH,  
11               wherein the predetermined code comprises a mobile station code.